

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/822,186DATE: 06/16/97
TIME: 18:18:32

INPUT SET: S18376.raw

This Raw Listing contains the General
Information Section and up to the first 5 pages.

SEQUENCE LISTING

ENTERED

1
2
3 (1) General Information:
4
5 (i) APPLICANT: RUEGER, David C.
6 TUCKER, Marjorie M.
7
8 (ii) TITLE OF INVENTION: IMPROVED OSTEOGENIC DEVICES AND METHODS
9 OF USE THEREOF FOR REPAIR OF ENDOCHONDRAL BONE AND
10 OSTEOCHONDRAL DEFECTS
11
12 (iii) NUMBER OF SEQUENCES: 9
13
14 (iv) CORRESPONDENCE ADDRESS:
15 (A) ADDRESSEE: CREATIVE BIOMOLECULES, INC
16 (B) STREET: 45 SOUTH STREET
17 (C) CITY: HOPKINTON
18 (D) STATE: MA
19 (E) COUNTRY: USA
20 (F) ZIP: 01748
21
22 (v) COMPUTER READABLE FORM:
23 (A) MEDIUM TYPE: Floppy disk
24 (B) COMPUTER: IBM PC compatible
25 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
26 (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
27
28 (vi) CURRENT APPLICATION DATA:
29 (A) APPLICATION NUMBER:
30 (B) FILING DATE:
31 (C) CLASSIFICATION:
32
33 (viii) ATTORNEY/AGENT INFORMATION:
34 (A) NAME: VITO, CHRISTINE C
35 (B) REGISTRATION NUMBER: 39,061
36 (C) REFERENCE/DOCKET NUMBER: CRP-137
37
38 (ix) TELECOMMUNICATION INFORMATION:
39 (A) TELEPHONE: (617) 248-7000
40 (B) TELEFAX: (617) 248-7100
41
42
43 (2) INFORMATION FOR SEQ ID NO:1:
44
45 (i) SEQUENCE CHARACTERISTICS:
46 (A) LENGTH: 1822 base pairs

RAW SEQUENCE LISTING PATENT APPLICATION US/08/822,186

DATE: 06/16/97

TIME: 18:18:34

INPUT SET: S18376.raw

```

47      (B) TYPE: nucleic acid
48      (C) STRANDEDNESS: single
49      (D) TOPOLOGY: linear
50
51      (ii) MOLECULE TYPE: cDNA
52
53      (vi) ORIGINAL SOURCE:
54          (A) ORGANISM: HOMO SAPIENS
55          (F) TISSUE TYPE: HIPPOCAMPUS
56
57      (ix) FEATURE:
58          (A) NAME/KEY: CDS
59          (B) LOCATION: 49..1341
60          (C) IDENTIFICATION METHOD: experimental
61          (D) OTHER INFORMATION: /function= "OSTEOGENIC PROTEIN"
62      /product= "OP1"
63      /evidence= EXPERIMENTAL
64      /standard_name= "OP1"
65
66
67      (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
68
69      GGTGCGGGCC CGGAGCCCGG AGCCCGGGTA GCGCGTAGAG CCGGCGCG ATG CAC GTG      57
70                                          Met His Val
71                                          1
72
73      CGC TCA CTG CGA GCT GCG GCG CCG CAC AGC TTC GTG GCG CTC TGG GCA      105
74      Arg Ser Leu Arg Ala Ala Ala Pro His Ser Phe Val Ala Leu Trp Ala
75          5              10              15
76
77      CCC CTG TTC CTG CTG CGC TCC GCC CTG GCC GAC TTC AGC CTG GAC AAC      153
78      Pro Leu Phe Leu Leu Arg Ser Ala Leu Ala Asp Phe Ser Leu Asp Asn
79          20              25              30              35
80
81      GAG GTG CAC TCG AGC TTC ATC CAC CGG CGC CTC CGC AGC CAG GAG CGG      201
82      Glu Val His Ser Ser Phe Ile His Arg Arg Leu Arg Ser Gln Glu Arg
83          40              45              50
84
85      CGG GAG ATG CAG CGC GAG ATC CTC TCC ATT TTG GGC TTG CCC CAC CGC      249
86      Arg Glu Met Gln Arg Glu Ile Leu Ser Ile Leu Gly Leu Pro His Arg
87          55              60              65
88
89      CCG CGC CCG CAC CTC CAG GGC AAG CAC AAC TCG GCA CCC ATG TTC ATG      297
90      Pro Arg Pro His Leu Gln Gly Lys His Asn Ser Ala Pro Met Phe Met
91          70              75              80
92
93      CTG GAC CTG TAC AAC GCC ATG GCG GTG GAG GAG GGC GGC GGG CCC GGC      345
94      Leu Asp Leu Tyr Asn Ala Met Ala Val Glu Glu Gly Gly Gly Pro Gly
95          85              90              95
96
97      GGC CAG GGC TTC TCC TAC CCC TAC AAG GCC GTC TTC AGT ACC CAG GGC      393
98      Gly Gln Gly Phe Ser Tyr Pro Tyr Lys Ala Val Phe Ser Thr Gln Gly
99      100              105              110              115

```

INPUT SET: S18376.raw

100																		
101	CCC	CCT	CTG	GCC	AGC	CTG	CAA	GAT	AGC	CAT	TTC	CTC	ACC	GAC	GCC	GAC		441
102	Pro	Pro	Leu	Ala	Ser	Leu	Gln	Asp	Ser	His	Phe	Leu	Thr	Asp	Ala	Asp		
103					120					125					130			
104																		
105	ATG	GTC	ATG	AGC	TTC	GTC	AAC	CTC	GTG	GAA	CAT	GAC	AAG	GAA	TTC	TTC		489
106	Met	Val	Met	Ser	Phe	Val	Asn	Leu	Val	Glu	His	Asp	Lys	Glu	Phe	Phe		
107				135					140					145				
108																		
109	CAC	CCA	CGC	TAC	CAC	CAT	CGA	GAG	TTC	CGG	TTT	GAT	CTT	TCC	AAG	ATC		537
110	His	Pro	Arg	Tyr	His	His	Arg	Glu	Phe	Arg	Phe	Asp	Leu	Ser	Lys	Ile		
111			150					155					160					
112																		
113	CCA	GAA	GGG	GAA	GCT	GTC	ACG	GCA	GCC	GAA	TTC	CGG	ATC	TAC	AAG	GAC		585
114	Pro	Glu	Gly	Glu	Ala	Val	Thr	Ala	Ala	Glu	Phe	Arg	Ile	Tyr	Lys	Asp		
115		165					170					175						
116																		
117	TAC	ATC	CGG	GAA	CGC	TTC	GAC	AAT	GAG	ACG	TTC	CGG	ATC	AGC	GTT	TAT		633
118	Tyr	Ile	Arg	Glu	Arg	Phe	Asp	Asn	Glu	Thr	Phe	Arg	Ile	Ser	Val	Tyr		
119	180					185					190					195		
120																		
121	CAG	GTG	CTC	CAG	GAG	CAC	TTG	GGC	AGG	GAA	TCG	GAT	CTC	TTC	CTG	CTC		681
122	Gln	Val	Leu	Gln	Glu	His	Leu	Gly	Arg	Glu	Ser	Asp	Leu	Phe	Leu	Leu		
123					200					205					210			
124																		
125	GAC	AGC	CGT	ACC	CTC	TGG	GCC	TCG	GAG	GAG	GGC	TGG	CTG	GTG	TTT	GAC		729
126	Asp	Ser	Arg	Thr	Leu	Trp	Ala	Ser	Glu	Glu	Gly	Trp	Leu	Val	Phe	Asp		
127				215					220					225				
128																		
129	ATC	ACA	GCC	ACC	AGC	AAC	CAC	TGG	GTG	GTC	AAT	CCG	CGG	CAC	AAC	CTG		777
130	Ile	Thr	Ala	Thr	Ser	Asn	His	Trp	Val	Val	Asn	Pro	Arg	His	Asn	Leu		
131			230					235					240					
132																		
133	GGC	CTG	CAG	CTC	TCG	GTG	GAG	ACG	CTG	GAT	GGG	CAG	AGC	ATC	AAC	CCC		825
134	Gly	Leu	Gln	Leu	Ser	Val	Glu	Thr	Leu	Asp	Gly	Gln	Ser	Ile	Asn	Pro		
135		245					250					255						
136																		
137	AAG	TTG	GCG	GGC	CTG	ATT	GGG	CGG	CAC	GGG	CCC	CAG	AAC	AAG	CAG	CCC		

RAW SEQUENCE LISTING PATENT APPLICATION US/08/822,186

DATE: 06/16/97
TIME: 18:18:39

INPUT SET: S18376.raw

```

153 AGC GAC CAG AGG CAG GCC TGT AAG AAG CAC GAG CTG TAT GTC AGC TTC
154 Ser Asp Gln Arg Gln Ala Cys Lys Lys His Glu Leu Tyr Val Ser Phe
155 325 330 335 1065
156
157 CGA GAC CTG GGC TGG CAG GAC TGG ATC ATC GCG CCT GAA GGC TAC GCC
158 Arg Asp Leu Gly Trp Gln Asp Trp Ile Ile Ala Pro Glu Gly Tyr Ala
159 340 345 350 355 1113
160
161 GCC TAC TAC TGT GAG GGG GAG TGT GCC TTC CCT CTG AAC TCC TAC ATG
162 Ala Tyr Tyr Cys Glu Gly Glu Cys Ala Phe Pro Leu Asn Ser Tyr Met
163 360 365 370 1161
164
165 AAC GCC ACC AAC CAC GCC ATC GTG CAG ACG CTG GTC CAC TTC ATC AAC
166 Asn Ala Thr Asn His Ala Ile Val Gln Thr Leu Val His Phe Ile Asn
167 375 380 385 1209
168
169 CCG GAA ACG GTG CCC AAG CCC TGC TGT GCG CCC ACG CAG CTC AAT GCC
170 Pro Glu Thr Val Pro Lys Pro Cys Cys Ala Pro Thr Gln Leu Asn Ala
171 390 395 400 1257
172
173 ATC TCC GTC CTC TAC TTC GAT GAC AGC TCC AAC GTC ATC CTG AAG AAA
174 Ile Ser Val Leu Tyr Phe Asp Asp Ser Ser Asn Val Ile Leu Lys Lys
175 405 410 415 1305
176
177 TAC AGA AAC ATG GTG GTC CGG GCC TGT GGC TGC CAC TAGCTCCTCC
178 Tyr Arg Asn Met Val Val Arg Ala Cys Gly Cys His
179 420 425 430 1351
180
181 GAGAATTCAG ACCCTTTGGG GCCAAGTTTT TCTGGATCCT CCATTGCTCG CCTTGGCCAG
182 1411
183 GAACCAGCAG ACCAACTGCC TTTTGTGAGA CCTTCCCCTC CCTATCCCCA ACTTTAAAGG
184 1471
185 TGTGAGAGTA TTAGGAAACA TGAGCAGCAT ATGGCTTTTG ATCAGTTTTT CAGTGGCAGC
186 1531
187 ATCCAATGAA CAAGATCCTA CAAGCTGTGC AGGCAAAACC TAGCAGGAAA AAAAAACAAC
188 1591
189 GCATAAAGAA AAATGGCCGG GCCAGGTCAT TGGCTGGGAA GTCTCAGCCA TGCACGGACT
190 1651
191 CGTTTCCAGA GGTAATTATG AGCGCCTACC AGCCAGGCCA CCCAGCCGTG GGAGGAAGGG
192 1711
193 GGCCTGGCAA GGGGTGGGCA CATTGGTGTC TGTGCGAAAG GAAAATTGAC CCGGAAGTTC
194 1771
195 CTGTAATAAAA TGTACAATA AAACGAATGA ATGAAAAAAA AAAAAAAAAA A
196 1822
197
198 (2) INFORMATION FOR SEQ ID NO:2:
199
200 (i) SEQUENCE CHARACTERISTICS:
201 (A) LENGTH: 431 amino acids
202 (B) TYPE: amino acid
203 (D) TOPOLOGY: linear
204
205 (ii) MOLECULE TYPE: protein

```

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/822,186DATE: 06/16/97
TIME: 18:18:41

INPUT SET: S18376.raw

206
207 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:
208
209 Met His Val Arg Ser Leu Arg Ala Ala Ala Pro His Ser Phe Val Ala
210 1 5 10 15
211
212 Leu Trp Ala Pro Leu Phe Leu Leu Arg Ser Ala Leu Ala Asp Phe Ser
213 20 25 30
214
215 Leu Asp Asn Glu Val His Ser Ser Phe Ile His Arg Arg Leu Arg Ser
216 35 40 45
217
218 Gln Glu Arg Arg Glu Met Gln Arg Glu Ile Leu Ser Ile Leu Gly Leu
219 50 55 60
220
221 Pro His Arg Pro Arg Pro His Leu Gln Gly Lys His Asn Ser Ala Pro
222 65 70 75 80
223
224 Met Phe Met Leu Asp Leu Tyr Asn Ala Met Ala Val Glu Glu Gly Gly
225 85 90 95
226
227 Gly Pro Gly Gly Gln Gly Phe Ser Tyr Pro Tyr Lys Ala Val Phe Ser
228 100 105 110
229
230 Thr Gln Gly Pro Pro Leu Ala Ser Leu Gln Asp Ser His Phe Leu Thr
231 115 120 125
232
233 Asp Ala Asp Met Val Met Ser Phe Val Asn Leu Val Glu His Asp Lys
234 130 135 140
235
236 Glu Phe Phe His Pro Arg Tyr His His Arg Glu Phe Arg Phe Asp Leu
237 145 150 155 160
238
239 Ser Lys Ile Pro Glu Gly Glu Ala Val Thr Ala Ala Glu Phe Arg Ile
240 165 170 175
241
242 Tyr Lys Asp Tyr Ile Arg Glu Arg Phe Asp Asn Glu Thr Phe Arg Ile
243 180 185 190
244
245 Ser Val Tyr Gln Val Leu Gln Glu His Leu Gly Arg Glu Ser Asp Leu
246 195 200 205
247
248 Phe Leu Leu Asp Ser Arg Thr Leu Trp Ala Ser Glu Glu Gly Trp Leu
249 210 215 220
250
251 Val Phe Asp Ile Thr Ala Thr Ser Asn His Trp Val Val Asn Pro Arg
252 225 230 235 240
253
254 His Asn Leu Gly Leu Gln Leu Ser Val Glu Thr Leu Asp Gly Gln Ser
255 245 250 255
256
257 Ile Asn Pro Lys Leu Ala Gly Leu Ile Gly Arg His Gly Pro Gln Asn
258 260 265 270

PAGE: 1

SEQUENCE VERIFICATION REPORT
PATENT APPLICATION US/08/822,186

DATE: 06/16/97
TIME: 18:18:43

INPUT SET: S18376.raw

Line

Error

Original Text

